

WHAT IS CLAIMED IS:

1. A spread illuminating apparatus comprising:
 - at least one light source;
 - a light conductive plate which has the at least one light source disposed so as to face toward one end surface thereof, and which allows light emitted from the at least one light source and introduced thereinto to exit out from at least one of two major surfaces thereof respectively toward at least one object to be illuminated; and
 - a light converging means which has a refractive index profile in a direction orthogonal to the two major surfaces of the light conductive plate, and which is disposed between the at least one light source and the one end surface of the light conductive plate.
2. A spread illuminating apparatus according to Claim 1, wherein the refractive index profile of the light converging means is structured symmetric about a center plane of the light converging means such that a refractive index decreases with an increase in distance from the center plane.
3. A spread illuminating apparatus according to Claim 1 or 2, wherein the light converging means has a height substantially equal to a thickness of the light conductive plate toward the one end surface.
4. A spread illuminating apparatus according to any one of Claims 1 to 3, wherein the light converging means has its light entrance surface and its light exit surface oriented parallel to each other.
5. A spread illuminating apparatus according to any one of Claims 1 to 4, wherein the light converging means has the light entrance surface and the light exit surface bonded respectively to the at least one light source and the one end surface of the light conductive plate by means of an adhesive which transmits the light emitted from the at least one light source.
6. A spread illuminating apparatus according to any one of Claims 1 to 5, wherein the light converging means comprises a plurality of transparent films which have respective refractive indexes and which are layered over one another, and a plurality of light-transmittable adhesive layers each of which is sandwiched between two adjacent

transparent films.

7. A spread illuminating apparatus according to Claim 6, wherein the plurality of the transparent films of the light converging means are provided in an odd number.

8. A spread illuminating apparatus according to Claim 6 or 7, wherein each of the adhesive layers of the light converging means has a refractive index at least equal to a refractive index of one of the two adjacent transparent films having a smaller refractive index, and has a refractive index at most equal to a refractive index of the other of the two adjacent transparent films having a larger refractive index.

9. A spread illuminating apparatus according to any one of Claims 6 to 8, wherein the plurality of transparent films are formed of resin.

10. A spread illuminating apparatus according to any one of Claims 6 to 8, wherein the plurality of transparent films are formed of glass.